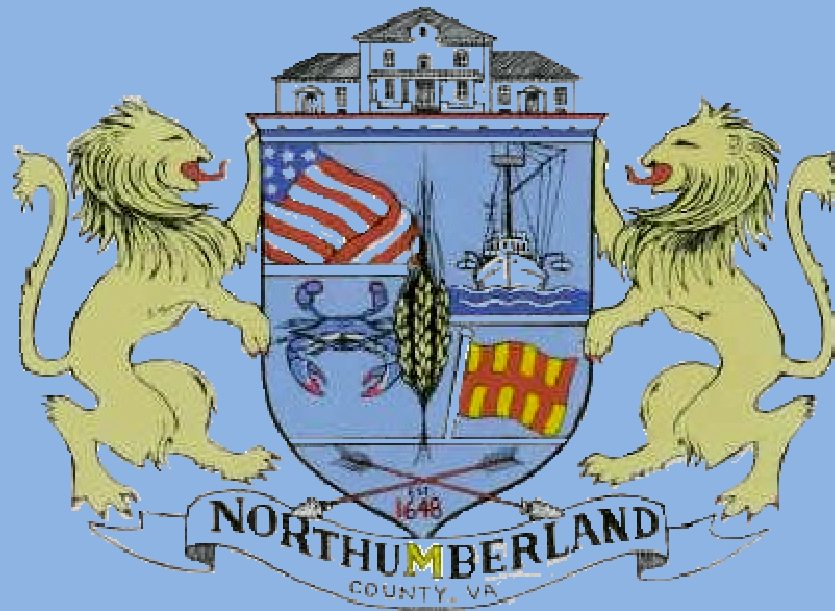


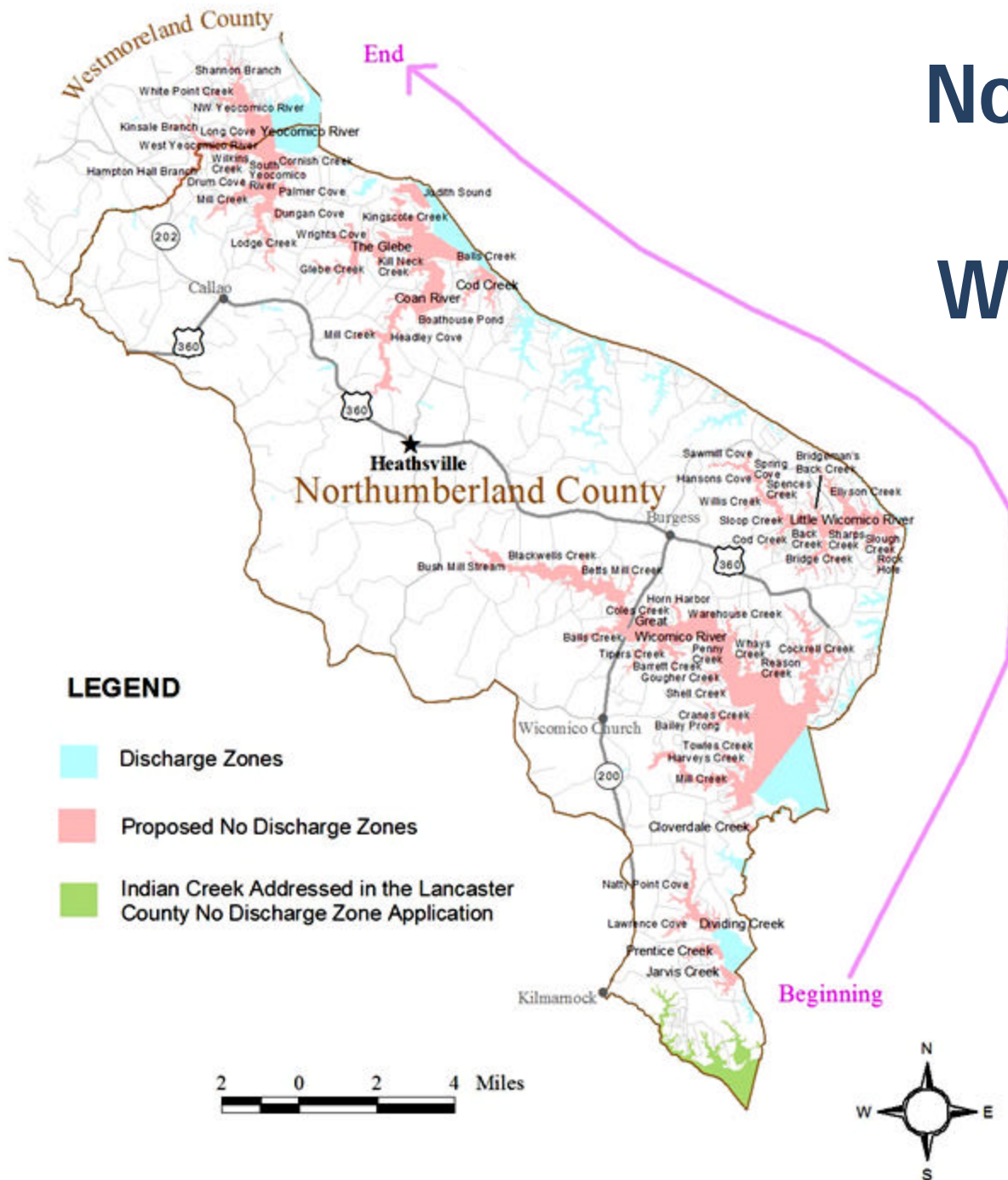
NO DISCHARGE ZONE APPLICATION

Northumberland County

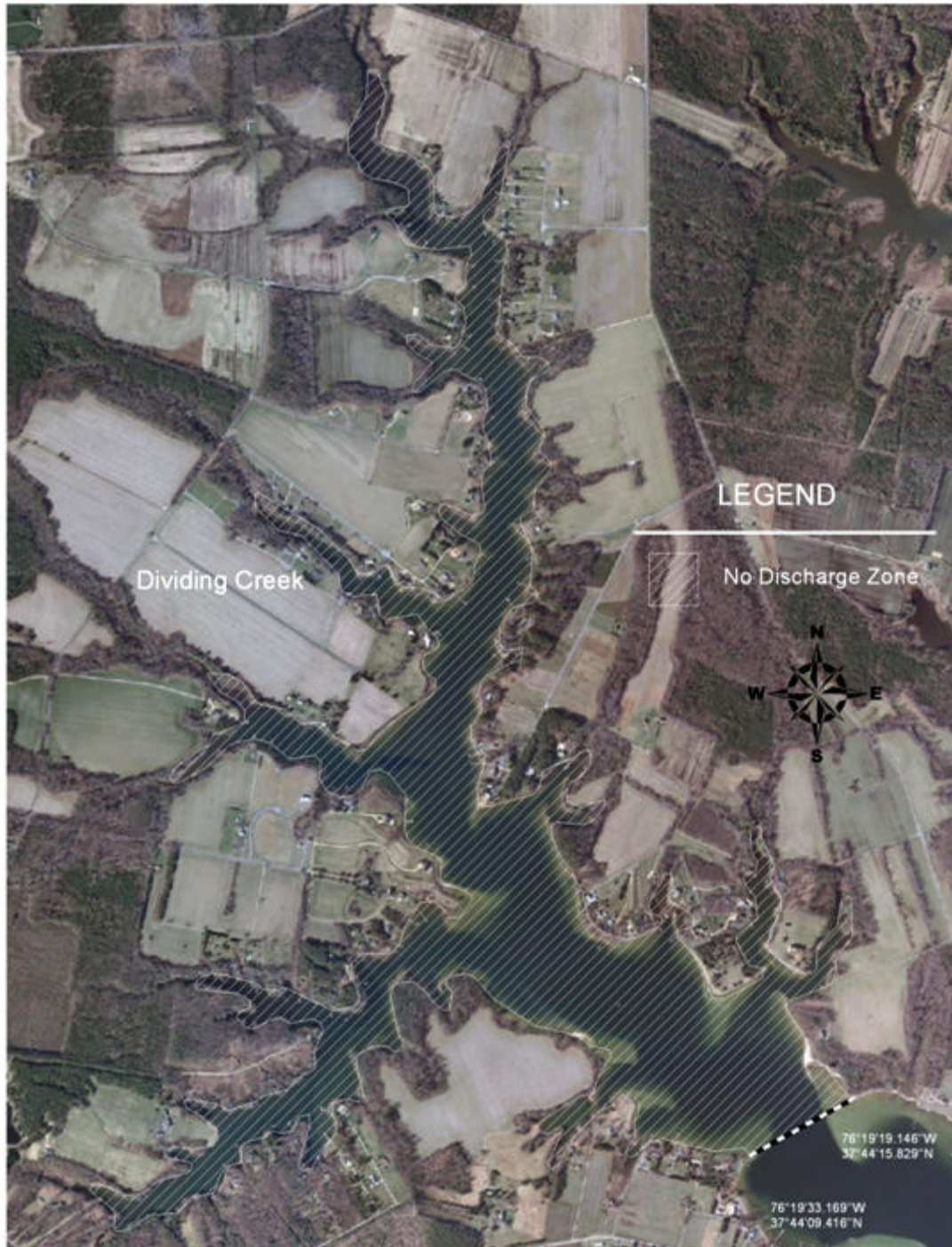


Tuesday, May 31st, 2011

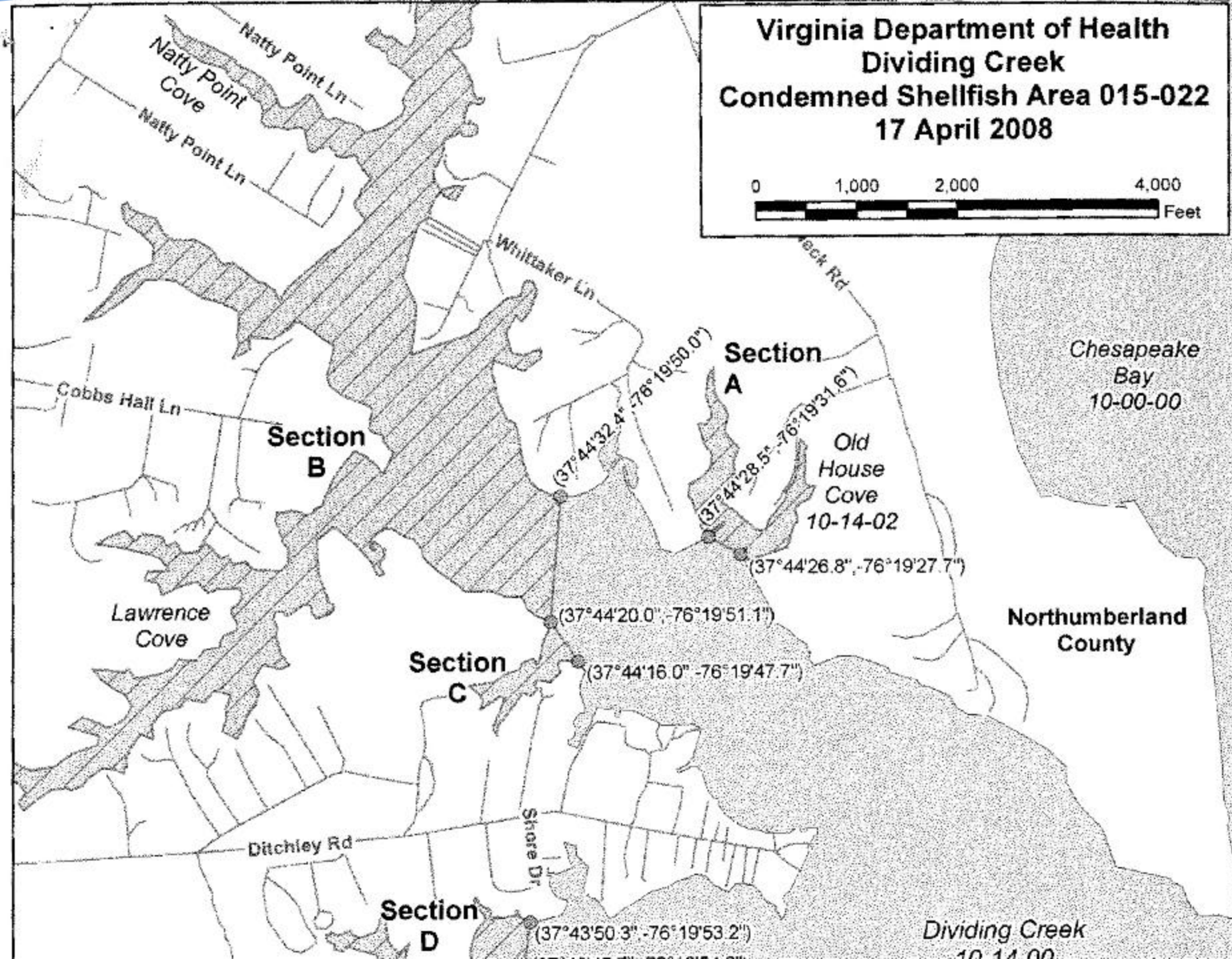
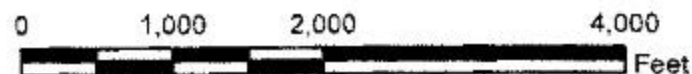
Northumberland County Waters Included



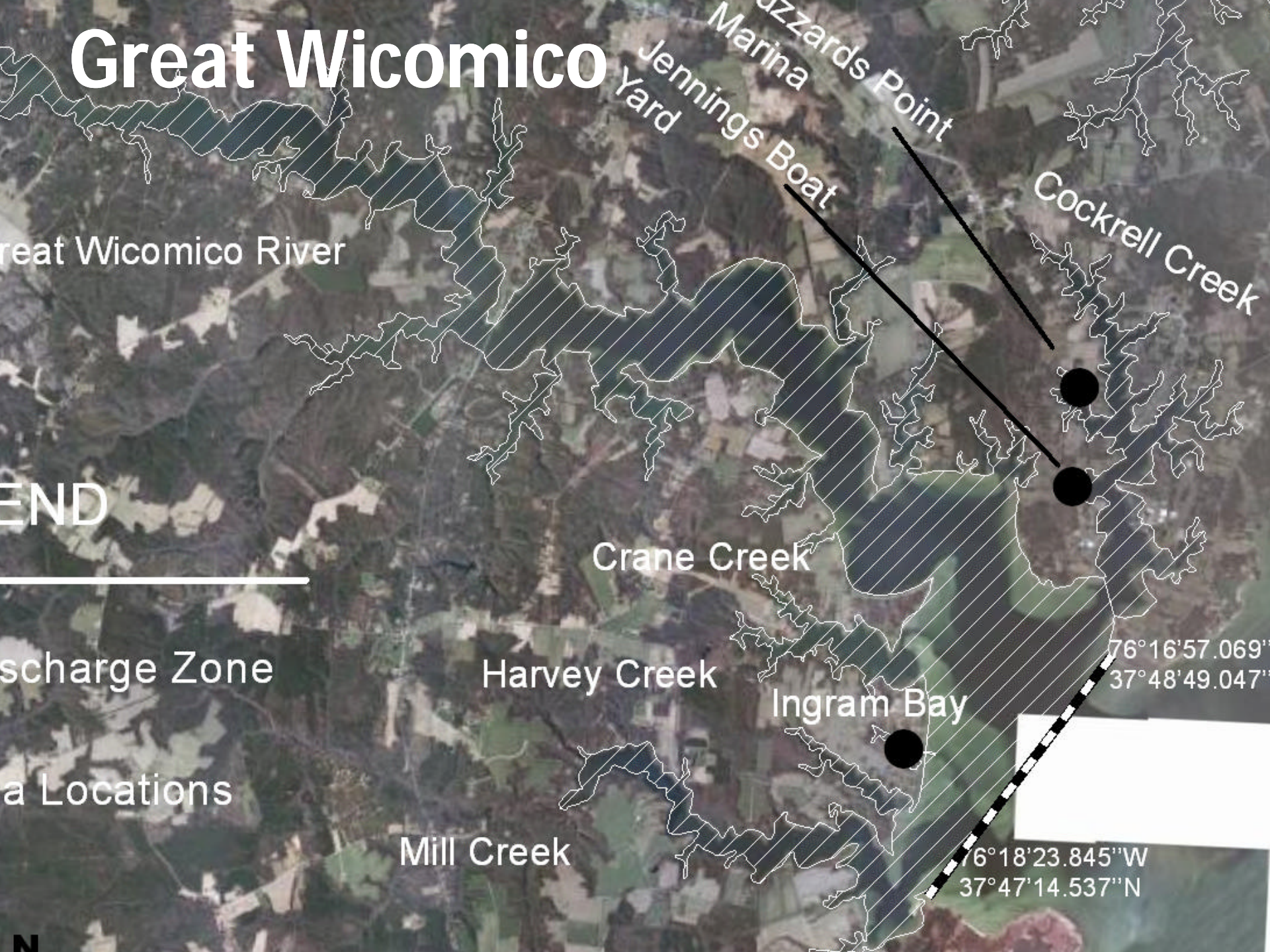
Dividing Creek



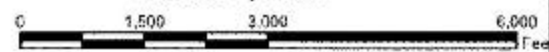
Virginia Department of Health
Dividing Creek
Condemned Shellfish Area 015-022
17 April 2008



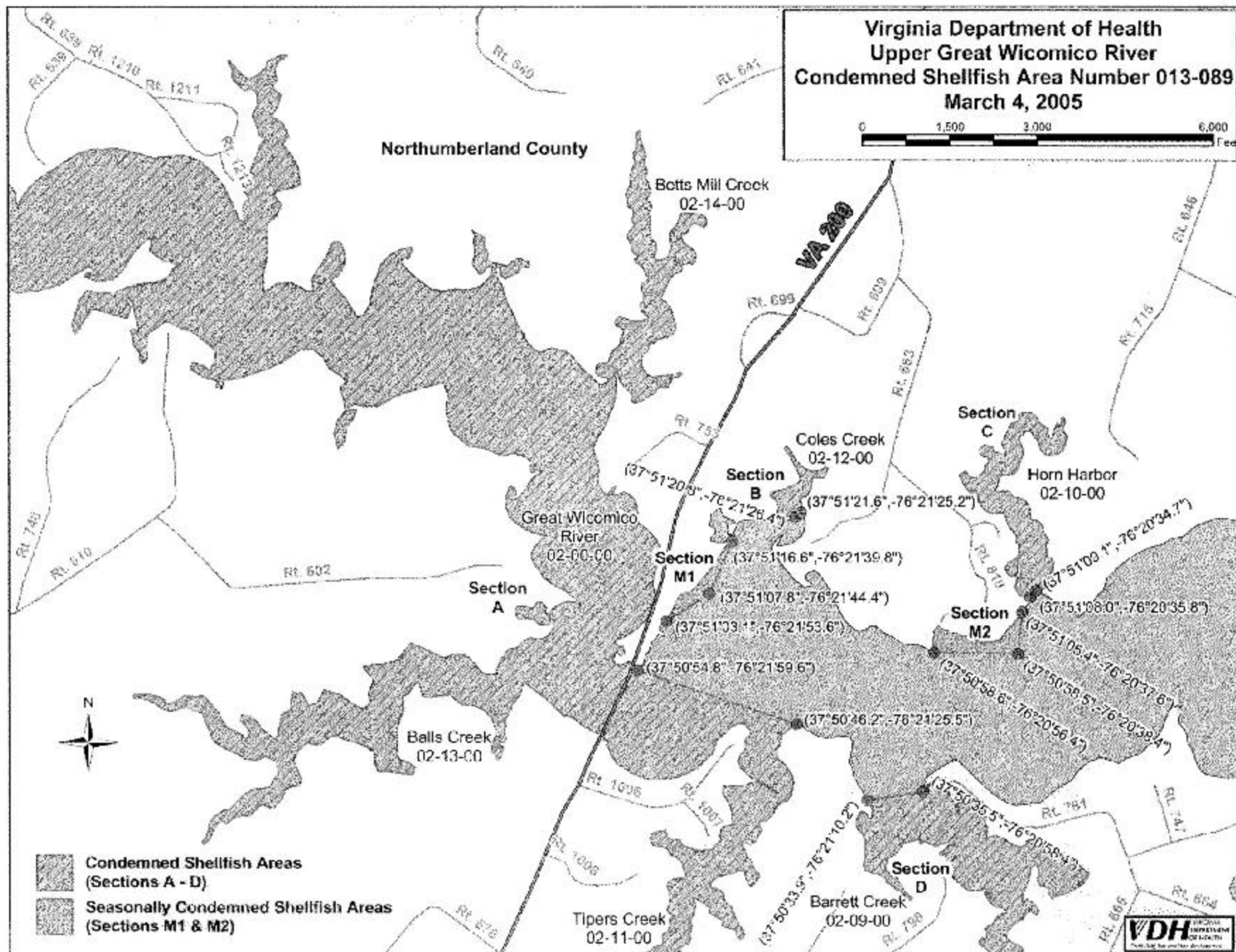
Great Wicomico



Virginia Department of Health
 Upper Great Wicomico River
 Condemned Shellfish Area Number 013-089
 March 4, 2005



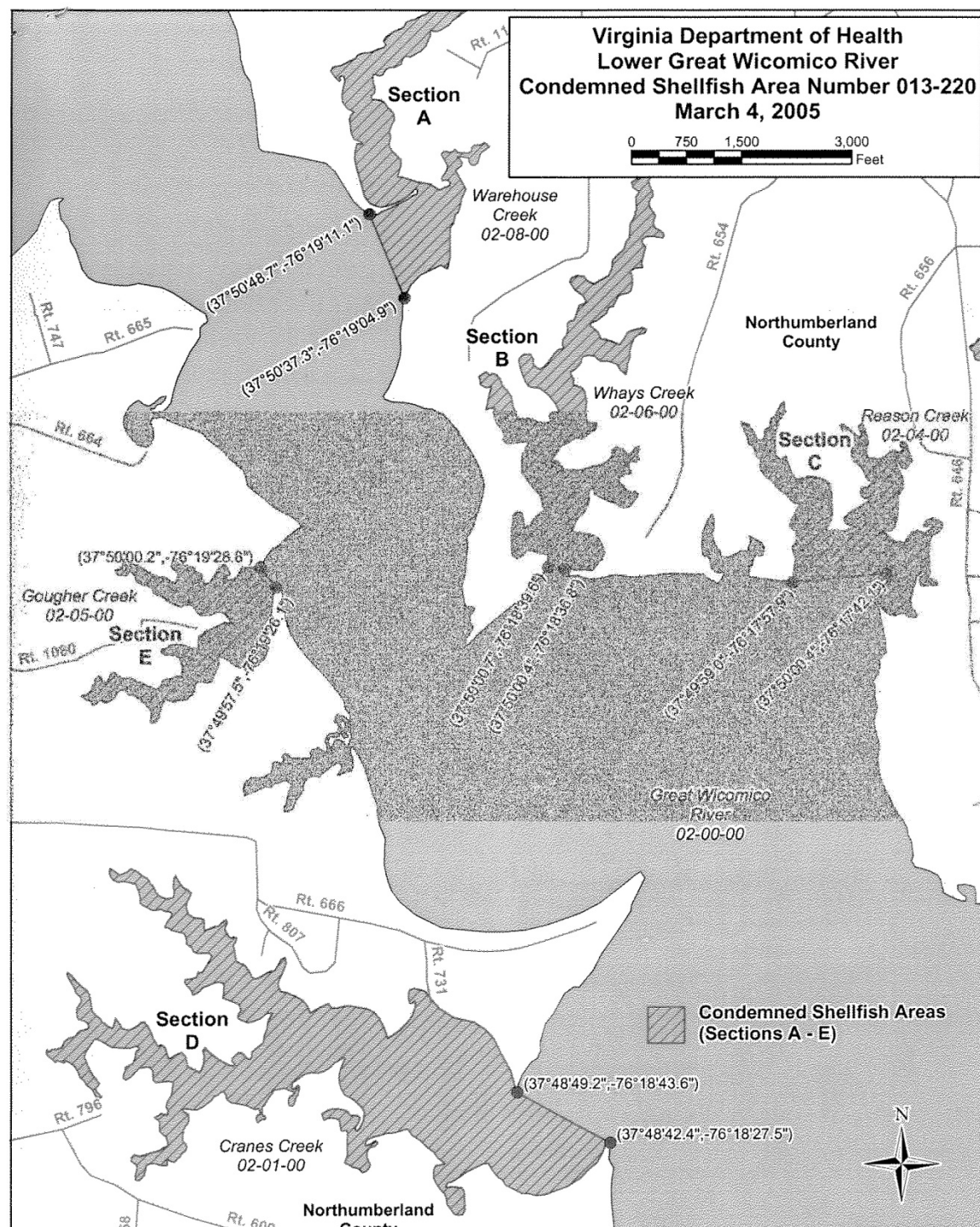
Northumberland County



- Condemned Shellfish Areas (Sections A - D)
- Seasonally Condemned Shellfish Areas (Sections M1 & M2)

Virginia Department of Health
Lower Great Wicomico River
Condemned Shellfish Area Number 013-220
March 4, 2005

0 750 1,500 3,000
Feet



NUMBER OF VESSELS THAT WILL NEED FACILITIES

DATA SOURCES

- Field surveys conducted by the NNPDC and submitted by marina operators
- Department of Game and Inland Fisheries (vessel registration database)*
- Virginia Department of Health, Division of Waste Water Engineering (marina database)
- Federally-documented vessels (U.S. Coast Guard)*

Number of Facilities Needed

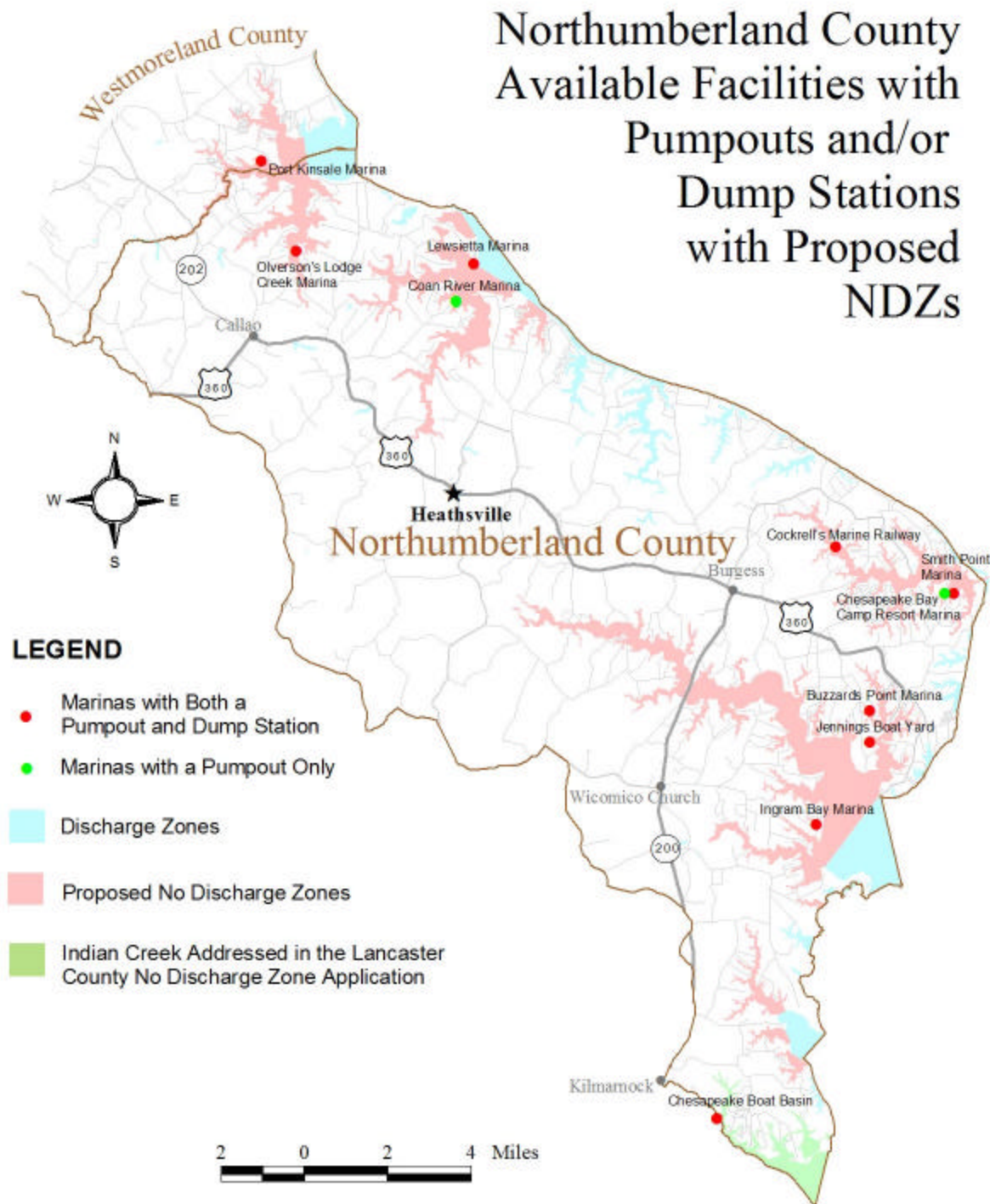
3 (2.81) pumpout facilities

5 (4.14) dump stations

To calculate the estimated number of facilities needed for the proposed NDZ areas, this application utilizes an Environmental Protection Agency formula, titled *Boater Sanitary Waste Reception Facility Requirements Worksheet*.

Northumberland County has 6 (six) marinas with weekend hours and *both* dump-station and pumpout services for customers within the proposed No Discharge Zone.

Northumberland County Available Facilities with Pumpouts and/or Dump Stations with Proposed NDZs



SUMMARY

- Water bodies are compromised by bacterial impairment, low-dissolved oxygen, and conditions that impair growth of aquatic plants
- Water bodies fail to meet water-quality standards
- Pumpout facilities and dump stations are available to serve the estimated vessel population using these waters
- NDZs protect low-flushing tidal tributaries
- The Virginia Department of Environmental Quality deems these water bodies excellent candidates for No Discharge Zone designation

QUESTIONS?



Virginia Department of
Environmental Quality

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www.nnpdc.org

Draft Application Online:

<http://www.deq.virginia.gov/tmdl/ndz.html>

End of Comments Date: 6/30/2011



NUMBER OF VESSELS THAT WILL NEED **PUMPOUT** FACILITIES

Estimate of Required Pumpout Facilities	
A) Number of vessels 27-40 ft. in length	1,035
B) Enter % of 27-40 ft. vessels with holding tanks in Virginia ²	25%
C) Estimated number of 27-40 ft. vessels with holding tanks (multiply lines A and B)	259
D) Enter the number of vessels greater than 40 ft. in length	152
E) Estimated total number of vessels with holding tanks (addition of lines C and D)	410.5
F) Estimated peak occupancy rate (i.e. on a holiday weekend; if unknown, use 40%)	40%
G) Estimated number of vessels requiring pumpout facilities (multiply lines E and F)	164.2
H) Average number of vessels served per hour per pumpout (if unknown, use 4/hr)	4
I) Average number of weekend operating hours per facility (if unknown, use 24 hrs.)	14.6
J) Estimated number of vessels served per pumpout facility (multiply lines H and I)	58.4
K) Estimated number of pumpout facilities required (divide line G by line J)	2.81

NUMBER OF VESSELS THAT WILL NEED **DUMP STATION** FACILITIES

Estimate of Required Dump Stations	
L) Number of vessels 16-26 ft. in length	4,899
M) Enter % of 16-26 ft. vessels with portable toilets in Virginia ²	37%
N) Estimated number of vessels with portable toilets (multiply lines L and M)	1,813
O) Estimated peak occupancy rate (if unknown, use 40%)	40%
P) Estimated number of vessels requiring dump stations (multiply lines N and O)	725.1
Q) Average number of vessels served per hour per station (if unknown, use 12/hr)	12
R) Average number of weekend operating hours per station (if unknown, use 24 hrs.)	14.6
S) Estimated number of vessels served per dump station (multiply lines Q and R)	175.2
T) Estimated number of dump stations required (divide line P by line S)	4.14